

**CLAIM AMENDMENTS**

This listing of claims will replace all prior versions and listings of claims in the application.

**Listing of Claims**

1. (Currently Amended) Method of producing and displaying ~~an image~~ a plurality of images on

a display screen of a volume from a multi-dimensional object data set, characterized in that:

a surface associated with the volume is identified,

an initial position on the identified surface is selected,

at least one depth associated with the identified surface is selected from a priori information,

a reformat slice is produced from the object data set at the selected depth along the normal to the identified surface at the selected initial ~~position~~, and position,

a resulting image is displayed on a display ~~screen~~ screen,

a plurality of subsequent positions on the identified surface are sequentially selected by moving a cursor on the display screen over the resulting image, and

an equivalent planar reformat is presented for every point on the identified surface that the cursor traversed when moved.

2. (Original) A method as in claim 1, characterized in that:

at least one further position on the identified surface is selected and a reformat slice is produced at said selected depth along the normal to the identified surface at said further selected position.

3. (Currently Amended) A method of producing and displaying ~~an image~~ a plurality of images on a display screen of a volume from a multi-dimensional object data set, characterized in that:

a surface associated with the volume is identified,

an initial position on the identified surface is selected,

at least one depth associated with the identified surface is selected,

a reformat slice is produced from the object data set at the selected depth along the normal to the identified surface at the selected initial ~~position~~, and position,

a resulting image is displayed on a display screen, characterized in that:

                 reformat slices are produced perpendicular to the normal to the identified surface at the selected position, and

                 the depth associated with the identified surface is selected by selecting one of those reformat ~~slices~~ slices,

                 a plurality of subsequent positions on the identified surface are sequentially selected by moving a cursor on the display screen over the resulting image, and

                 an equivalent planar reformat is presented for every point on the identified surface that the cursor traversed when moved.

4. (Currently Amended) A method of producing and displaying ~~an image~~ a plurality of images on a display screen of a volume from a multi-dimensional object data set, characterized in that:

a surface associated with the volume is identified,

an initial position on the identified surface is selected,

at least one depth associated with the identified surface is selected,  
a reformat slice is produced from the object data set at the selected depth along the normal to the identified surface at the selected initial ~~position, and~~ position,  
a resulting image is displayed on a display screen, characterized in that:  
          a transverse view is created, which includes the identified surface and the  
selected point, and  
          the depth associated with the identified surface is selected from this  
transverse ~~view-view~~,  
          a plurality of subsequent positions on the identified surface are sequentially  
selected by moving a cursor on the display screen over the resulting image, and  
          an equivalent planar reformat is presented for every point on the identified surface  
that the cursor traversed when moved.

5. (Cancelled)

6. (Previously Presented) A method as in claim 1, characterized in that:

the reformat slice is perpendicular to the normal to the identified surface at the selected point on the identified surface, at the point on the reformat slice where the reformat slice is intersected by said normal to the identified surface.

7. (Original) A method as in claim 1, in which reformat slices are produced along the normal to the identified surface at the selected position, characterized in that:

the reformat slice is produced from a stack of reformat slices produced perpendicular to the normal to the selected point on the surface.

8. (Currently Amended) A ~~tangible media~~ computer readable medium containing code for a computer program characterized in that:

the computer program contains instructions to enable a surface associated with the volume to be selected, instructions to enable an initial point on the identified surface to be selected, instructions to enable at least one depth to be selected from a priori ~~information and~~ information, instructions to enable a reformat slice to be produced from the object data set at the selected depth along the normal to the identified surface at the selected ~~position~~ positions, instructions to enable sequential selection of a plurality of subsequent positions on the identified surface by moving a cursor on a display screen showing an image of the identified surface, and instructions to present an equivalent planar reformat for every point on the identified surface that the cursor traversed when moved.

9. (Currently Amended) A workstation configured for the purposes of producing, displaying and using images and containing instructions for the production and display of an image of a volume from a multi-dimensional object data set, characterized in that:

the workstation further includes instructions to enable a surface associated with the volume to be selected, instructions to enable an initial point on the identified surface to be selected, instructions to enable at least one depth to be selected from a priori ~~information and~~ information, instructions to enable a reformat slice to be produced from the object data set at the selected depth along the normal to the identified surface at the selected ~~position~~ position, instructions to enable sequential selection of a plurality of subsequent positions on the identified surface by moving a cursor on a display screen showing an image of the identified surface, and instructions to present an equivalent planar reformat for every point on the identified surface that the cursor traversed when moved.